

IN THE CLAIMS:

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1. (currently amended) A controller for use with a transceiver that transmits and receives data in a wireless communications network, comprising:

a sensing system configured to sense at least one characteristic associated with at least two channels of said wireless communications network;

a modification system configured to update channel information in a channel information table associated with said at least two channels based on said at least one characteristic; and

a selection system configured to select one of said at least two channels in accordance with said channel information allowing said controller to modify a transmission rate of said data over said wireless communications network.

2. (currently amended) The controller as recited in Claim 1 wherein said at least one characteristic is selected from the group comprising:

radio frequency (RF) energy associated with a signal on one of said at least two channels,

~~quality of service of a signal on one of said at least two channels;~~ and

system configuration parameters entered by a user of said wireless communications network.

3. (original) The controller as recited in Claim 1 wherein said wireless communications network is a wireless local area network.

4. (original) The controller as recited in Claim 1 wherein said modification system is configured to update channel information in a channel information table for each of said at least two channels.

5. (original) The controller as recited in Claim 1 wherein said sensing system is configured to periodically sense said at least one characteristic associated with said at least two channels.

6. (original) The controller as recited in Claim 1 wherein said at least two channels are within a radio frequency band.

7. (original) The controller as recited in Claim 1 wherein said controller transmits a signal on said selected one of said at least two channels using a direct sequence spread spectrum technology.

8. (currently amended) A method of controlling a signal transmission in a wireless communications network, comprising:

sensing at least one characteristic associated with at least two channels of said wireless communications network;

BI updating channel information in a channel information table associated with said at least two channels based on said at least one characteristic; and

selecting one of said at least two channels in accordance with said channel information to allow modifying a transmission rate of said signal over said wireless communications network.

9. (currently amended) The method recited in Claim 8 wherein said sensing includes sensing at least one characteristic selected from the group comprising:

radio frequency (RF) energy associated with a signal on one of said at least two channels,

~~quality of service of a signal on one of said at least two channels,~~ and

system configuration parameters entered by a user of said wireless communications network.

10. (original) The method recited in Claim 8 wherein said wireless communications network is a wireless local area network.

11. (original) The method recited in Claim 8 wherein said updating includes updating channel information in a channel information table for each of said at least two channels.

12. (original) The method recited in Claim 8 wherein said sensing includes periodically sensing said at least one characteristic associated with said at least two channels.

13. (original) The method recited in Claim 8 wherein said sensing includes sensing at least one characteristic associated with at least two channels within a radio frequency band.

14. (original) The method recited in Claim 8 wherein said controlling further comprises transmitting a signal on said selected one of said at least two channels using a direct sequence spread spectrum technology.

61 15. (currently amended) A wireless communications device for use in a wireless communications ~~communication~~ network, comprising:

an antenna;

a radio frequency filter;

a power source;

a transceiver that ~~to~~ transmits and receives wireless signals having a controller, the controller, comprising:

a sensing system that senses at least one characteristic associated with at least two channels of said wireless communications network,

a modification system that updates channel information in a channel information table associated with said at least two channels based on said at least one characteristic, and

a selection system that selects one of said at least two channels in accordance with said updated channel information allowing said controller to modify a transmission rate of said wireless signals over said wireless communications network.

16. (currently amended) The wireless communications device recited in Claim 15 wherein said at least one characteristic is selected from the group comprising:

radio frequency (RF) energy associated with a signal on one of said at least two channels,

~~quality of service of a signal on one of said at least two channels;~~ and

system configuration parameters entered by a user of said wireless communications network.

17. (original) The wireless communications device recited in Claim 15 wherein said wireless communications network is a wireless local area network.

B1 18. (original) The wireless communications device recited in Claim 15 wherein said modification system updates channel information in a channel information table for each of said at least two channels.

19. (original) The wireless communications device recited in Claim 15 wherein said sensing system periodically senses said at least one characteristic associated with said at least two channels.

20. (original) The wireless communications device recited in Claim 15 wherein said at least two channels are within a radio frequency band.

21. (original) The wireless communications device recited in Claim 15 wherein said controller transmits a signal on said selected one of said at least two channels using a direct sequence spread spectrum technology.

22. (currently amended) A method of transmitting data across a communications network having multiple channels, comprising:

establishing a bandwidth for transmission of data;

determining a modulation scheme and symbol rate as a function of said establishing said bandwidth; and

selecting at least one channel from said multiple channels ~~to transmit said data~~ based on a priority status of said data and transmitting said data over said selected as least one channel.

23. (canceled)

24. (currently amended) The method as recited in Claim ~~22~~ 23 further comprising modifying at least one of said modulation scheme and symbol rate in accordance with said priority status of said data.

25. (original) The method as recited in Claim 22 further comprising comparing an interference associated with said multiple channels to a threshold.

b1 26. (original) The method as recited in Claim 25 further comprising filtering out ones of said multiple channels experiencing interference above said threshold.

27. (original) The method as recited in Claim 25 wherein said threshold is a function of said establishing said bandwidth.

28. (original) The method as recited in Claim 22 further comprising transmitting said data over said at least one channel using said modulation scheme and symbol rate.

29. (original) The method as recited in Claim 28 wherein said transmitting comprises transmitting said data over multiple contiguous channels.

30. (original) The method as recited in Claim 22 wherein said communications network is a wireless local area network.

31. (new) The controller as recited in Claim 1 wherein said selection system is configured to modify said transmission rate based on a priority status of said data.